UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,745	02/02/2001	Christopher S. Moore	10519/16	9392

7590	11/09/2006	

BRINKS HOFER GILSON & LIONE
SUITE 3600
455 N. CITYFRONT PLAZA DR.
CHICAGO, IL 60611

EXAMINER
HENEGHAN, MATTHEW E

ART UNIT	PAPER NUMBER
2134	

DATE MAILED: 11/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
	09/775,745	MOORE ET AL.
Office Action Summary	Examiner	Art Unit	
	Matthew Heneghan	2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 September 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3,7,15,16,21,24,28,29,33,37-51 and 88-91* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3,7,15,16,21,24,28,29,33,37-51 and 88-91* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 May 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date *10/23/06*.

4)☒ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. *10/26/06* .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

1.   In response to the previous office action, Applicant has amended claims 3, 7, 15, 16, 21, 24, 28, and 33; cancelled claims 1, 2, 4-6, 8-14, 17-20, 22, 23, 25-27, 30-32, 34-36, and 72-87; and added claims 88-91. Claims 3, 7, 15, 16, 21, 24, 28, 29, 33, 37-51, and 88-91 have been examined.

2.   The finality of the Office action mailed 19 July 2006 is hereby withdrawn in view of the new grounds of rejection set forth below.

3.   An interview was held with Applicant's attorney on 26 October 2006 in which an Examiner's amendment was proposed; however, since an allowance is not being issued in this action, the proposed amendment is not being entered.

Information Disclosure Statement

4.   The IDS filed on 23 October 2006 has been fully considered.

Claim Objections

5.   Applicant is advised that should claim 28 be found allowable, claim 91 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two

claims in an application are duplicates or else are so close in content that they both

cover the same thing, despite a slight difference in wording, it is proper after allowing

one claim to object to the other as being a substantial duplicate of the allowed claim.

See MPEP § 706.03(k).

Terminal Disclaimer

6.   The terminal disclaimer filed on 18 September 2006 disclaiming the terminal

portion of any patent granted on this application which would extend beyond the

expiration date of U.S. Patent No. 6,778,974 has been reviewed and is accepted. The

terminal disclaimer has been recorded.

7.   In view of the terminal disclaimer, all previous rejections under the doctrine of

double patenting are withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8.   Claims 3, 7, 15, 37, 39, 41, 43-45, and 88 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,835,772 to Thurlo.

As per claims 3 and 37, Thurlo discloses an arrangement wherein program code, a device driver, is read from a peripheral, such as flash memory (which inherently comprises solid-state memory) (see column 3, lines 54-56), to a system to which it is coupled, and executed by the system to control the device (see column 2, line 64 to column 3, line 10). The driver code may then be used by the system to write additional data to the peripheral device (see column 5, line 53 to column 6, line 6).

Regarding claims 7, 39, and 43, Thurlo discloses that there exists a memory region on the peripheral that is protected such that the memory cannot be easily erased or written over, and that the program code is stored in this region (see column 4, lines 10-16). Since the writing functionality, discussed above, can clearly not write to this region, there must therefore inherently exist two regions on the peripheral: a protected region, for storing program code, and an unprotected region for writing non-program code (i.e. data, see column 5, line 16). Thurlo also discloses that a corresponding read functionality should be implemented in a manner similar to the write operation (see column 5, lines 38-41).

As per claims 15 and 88, the driver code is specific to that device; it therefore is not usable for other devices (see column 2, line 64 to column 3, line 3).

As per claim 41, Thurlo discloses that the program code that, after being downloaded to the system, is compiled (i.e. transformed to machine code) and/or

interpreted for use (see column 3, lines 1-10). This functionality makes the code

hardware-independent (see column 4, lines 30-46).

As per claim 44, the area in the peripheral for the storing of the program code

may be predefined (i.e. fixed) (see column 4, lines 22-24)

As per claim 45, the peripheral device may be a PDA, which is a calendaring and

display tool (see column 5, lines 18-21).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9.   Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 5,835,772 to Thurlo.

Thurlo discloses that the program may be stored in the memory cannot be easily

erased or written over, as described above, but does not disclose the manner in which

that property is effected.

Official notice is given that it is well-known in the art to store data that is not

meant to be easily overwritten in a write-once memory device, such as a ROM, as these

chips are specifically designed to inhibit writing in a cost-effective manner.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to implement the invention of Thurlo by using ROMs for storing the program, as these chips are specifically designed to inhibit writing in a cost-effective manner.

All ROMs inherently contain a finite amount of memory, depending upon the type of chip selected.

10.   Claims 16, 21, 24, 28, 29, 33, 38, 42, 48, and 89-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,835,772 to Thurlo as applied to claim 3 et al. above, and further in view of U.S. Patent No. 6,141,756 to Bright et al. further in view of U.S. Patent No. 6,308,317 to Wilkinson et al.

Regarding claims 16, 21, 24, 28, 29, 33, 38, 48, and 89-91, Thurlo does not discuss security considerations in program storage and loading.

Bright discloses the downloading to the system applications that are stored in encrypted form, and then decrypted by the system before execution during a bootstrap, which is an automatic loading of the drivers (see column 3, lines 11-15 and column 4, lines 14-19). Bright further suggests that this prevents tampering of the information (see column 1, lines 27-45).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Thurlo by storing applications, such as the I/O programs, in an encrypted form and then decrypting them in the system, as disclosed by Bright, in order to prevent the tampering of information.

Bright discloses an open-ended list of possible keys that may be used in the

encryption/decryption (see column 3, lines 43-46), but does not specifically cite the

usage of a card-specific key.

Wilkinson discloses the use of card-specific identifiers in the encryption process

in order to establish a set of privileges for the card's applications (see column 16, lines

51-58).

Therefore, it would have been obvious to one having ordinary skill in the art at

the time the invention was made to further modify the invention of Thurlo and Bright by

using the card identity in cryptography, as disclosed by Wilkinson, in order to establish a

set of privileges for the card's applications.

Regarding claim 42, Thurlo discloses the use of interpretive or compilable

sources, as discussed above, but does not disclose the usage of a language that

employs an intermediate language.

Wilkinson further discloses the use of Java, which employs an intermediate

language, in IC cards. It is well-known in the art that the use of Java enables

interoperability with a large number of systems, due to the language's widespread use.

Therefore it would have been obvious to one of ordinary skill in the art to further

modify the invention of Thurlo and Bright by using Java, as disclosed by Wilkinson, as

Java enables interoperability with a large number of systems, due to the language's

widespread use.

11.   Claims 46 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable

over U.S. Patent No. 5,835,772 to Thurlo as applied to claims 37 and 39 above, and

further in view of U.S. Patent No. 5,956,505 to Manduley.

Thurlo does not disclose the use of the invention on only a limited basis.

Manduley discloses the enabling of optional features in a system that may be

used for a set number of times or for a certain duration, and suggests that such a

temporary activation allows a user to have use of a feature on a rental basis (see

column 7, lines 5-13).

Therefore it would have been obvious to one of ordinary skill in the art to further

modify the invention of Thurlo by allowing for the programs on Thurlo's card to be used

for a set number of times or for a certain duration, as disclosed by Manduley, to allow a

user to have use of a feature on a rental basis

12.   Claims 49-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over

U.S. Patent No. 5,835,772 to Thurlo as applied to claims 37, 39, and 40 above, and

further in view of U.S. Patent No. 6,034,882 to Johnson et al.

Though the use of ROMs, which comprise semiconductor material, for program

storage is discussed above with respect to Thurlo (see the rejection of claim 40), the

physical structure of the ROMs has not heretofore been addressed.

Johnson discloses the use of three-dimensional memory arrays, as described

above, and states that higher memory densities, such as those offered by three-

dimensional arrays, are required to meet the ever-increasing demands for denser

semiconductors of the marketplace (see column 1, lines 14-19).

Therefore, it would be obvious to one of ordinary skill in the art at the time the

invention was made to implement the invention of Thurlo using the three-dimensional

arrays disclosed by Johnson, to meet the demands for denser semiconductors.

Conclusion

13.   Due to the new grounds of rejections being made herein, this action is non-final.

14.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Matthew E. Heneghan, whose telephone number is

(571) 272-3834. The examiner can normally be reached on Monday-Friday from 8:30

AM - 4:30 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Gilberto Barron, can be reached at (571) 272-3799.

Any response to this action should be mailed to:
Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450
Or faxed to:
(571) 273-3800

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (571) 272-
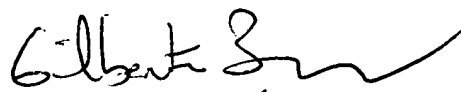
2100.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

MEH

November 3, 2006

GILBERTO BARRON JR
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100